

CLAIMS

1. A cast product of an aluminum-magnesium casting alloy consisting of, in weight percent:
 - 5 Mg 2.7 - 6.0
 - Mn 0.4 - 1.4
 - Zn 0.10 - 1.5
 - Zr 0.3 max.
 - V 0.3 max.
 - 10 Sc 0.3 max.
 - Ti 0.2 max.
 - Fe 1.0 max.
 - Si 1.4 max.
 - impurities each 0.05 max.
 - 15 total 0.25 max.
 - balance aluminum.
2. An aluminum casting alloy cast product according to claim 1, wherein the Mg content is in the range of 4.5 to 6.0%.
20
3. An aluminum casting alloy cast product according to claim 1, wherein the Mg content is in the range of 2.7 to 4.5 %.
4. An aluminum casting alloy cast product according to claim 1, wherein the Fe
25 content is in the range of at most 0.5 %.
5. An aluminum casting alloy cast product according to claim 1, wherein the Mn content is in the range of 0.4 to 1.2 %.
- 30 6. An aluminum casting alloy cast product according to claim 1, wherein the Zn content is in the range of 0.3 to 1.4 %.

7. An aluminum casting alloy cast product according to claim 1, wherein the Zr content is in the range of 0.05 to 0.25 %.
8. An aluminum casting alloy cast product according to claim 1, wherein the product is a die-cast product and the aluminum casting alloy is a die-casting alloy.
9. An aluminum casting alloy cast product according to claim 8, wherein the die-cast aluminum alloy product in the as-cast condition has a UTS of at least 250 MPa, a YS of at least 160 MPa, and an elongation of at least 10 %.
10. An aluminum alloy cast product according to claim 8, wherein the die-cast aluminum alloy product in the as-cast condition has a UTS of at least 210 MPa, a YS of at least 120 MPa, and an elongation of at least 17 %.
11. An aluminum casting alloy cast product according to claim 1, wherein the Mg content is in the range of 5.0 to 6.0%.
12. An aluminum casting alloy cast product according to claim 1, wherein the Mg content is in the range of 3.0 to 4.5%.
13. An aluminum casting alloy cast product according to claim 1, wherein the Zn content is in the range of 0.4 to 1.1 %.
14. An aluminum casting alloy cast product according to claim 1, wherein the Zn content is in the range of 0.45 to 0.9 %.
15. The aluminum casting alloy cast product according to claim 8, wherein the die-cast product is a safety component of a vehicle.
16. The aluminum casting alloy cast product according to claim 8, wherein the die-cast product is a frame member for a vehicle.

17. A method of use of an aluminum alloy comprising, casting an alloy consisting of, in weight percent:

	Mg	2.7 - 6.0
	Mn	0.4 - 1.4
5	Zn	0.10 - 1.5
	Zr	0.3 max.
	V	0.3 max.
	Sc	0.3 max.
	Ti	0.2 max.
10	Fe	1.0 max.
	Si	1.4 max.
	impurities	each 0.05 max.
		total 0.25 max.
	balance	aluminum.

15

18. The method according to claim 17, wherein the casting is die-casting.

19. The method according to claim 17, wherein the casting is die-casting of safety components for a vehicle.

20

20. The method according to claim 17, wherein the casting is die-casting of a frame member for a vehicle.